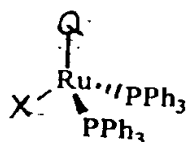




CLAIMS

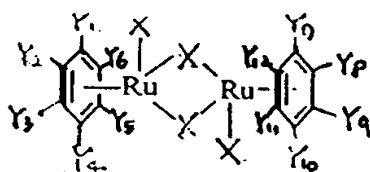
What is claimed is :

1. A process for preparing a chiral ester expressed in formula 100 by reacting;
 - a racemic alcohol of formula 4;
 - 5 a ruthenium complex selected from the group consisting of compounds 1, 2, and 3 expressed in formulas 1, 2, and 3 to activate racemization of said racemic alcohol;
 - a lipase to acylate one enantiomer selectively from said racemic alcohol;
 - and
 - 10 an acyl donor compound to supply acyl group to said lipase,



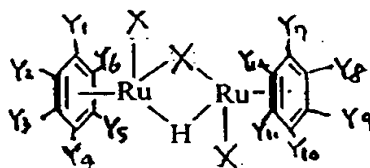
(1)

wherein Q is  or ; and X is Br, Cl or I;



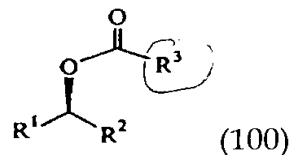
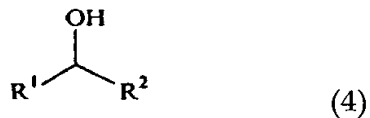
(2)

wherein Y₁, Y₂, Y₃, Y₄, Y₅, Y₆, Y₇, Y₈, Y₉, Y₁₀, Y₁₁, and Y₁₂ are independently a hydrogen atom or C₁-C₅ alkyl group; and X is Br, Cl or I;



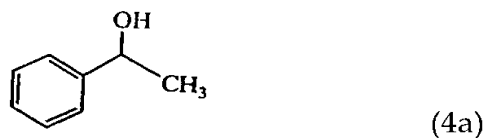
(3)

wherein Y₁, Y₂, Y₃, Y₄, Y₅, Y₆, Y₇, Y₈, Y₉, Y₁₀, Y₁₁, and Y₁₂ are independently a hydrogen atom or C₁-C₅ alkyl group; and X is Br, Cl or I; and

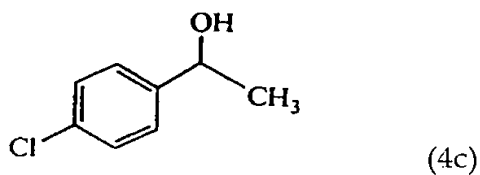
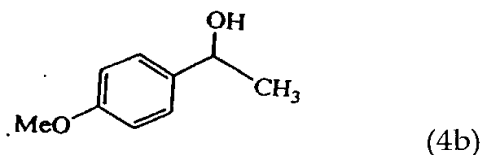


wherein R¹, R² and R³ are, independently, optionally substituted alkyl,
 5 optionally substituted aryl or optionally substituted cycloalkyl group and R¹
 and R², R¹ and R³, and R² and R³ can be cyclized each other, where said
 substituent of alkyl, aryl and cycloalkyl is a hetero atom such as a halogen atom
 and a cyano group.

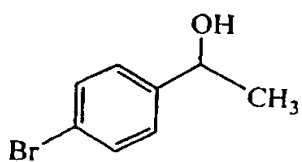
10 2. The process for preparing a chiral ester according to claim 1, wherein said
 racemic alcohol is selected from the group consisting of the compounds 4a, 4b,
 4c, 4d, 4e and 4f.



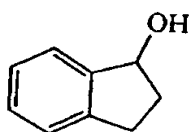
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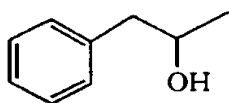
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(4d)



(4e)



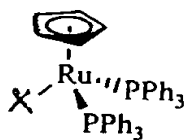
(4f)

5

3. The process for preparing a chiral ester according to claim 1, wherein said lipase is selected from the group consisting of *Pseudomonas cepacius* lipase and *Candida antarctica* lipase.

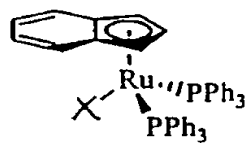
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4. The process for preparing a chiral ester according to claim 1, wherein said ruthenium complex is selected from the group consisting of compounds 5, 6, 7, 8, 9, 10, 11 and 12,

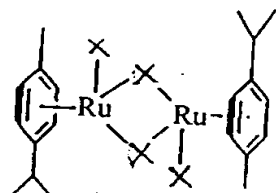


(5)

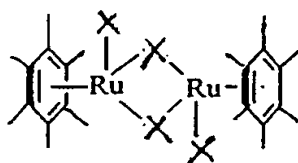
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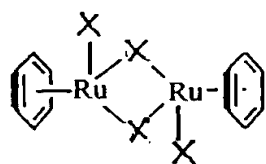
(6)



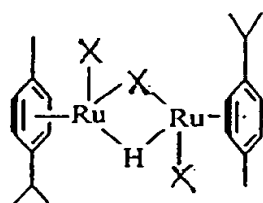
(7)



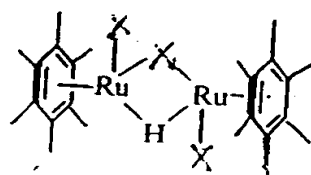
(8)



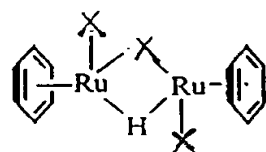
(9)



(10)



(11)



(12)

wherein X is Cl, Br or I, the most preferably Cl.

5. The process for preparing a chiral ester according to claim 3, wherein X is Cl.

6. The process for preparing a chiral ester according to claim 1, wherein said
5 reaction requires use of oxygen gas.

7. The process for preparing a chiral ester according to claim 1, wherein a
content of said ruthenium complex or its derivatives is in the range of 0.1 to
5mol% to said racemic alcohol.

10

8. The process for preparing a chiral ester according to claim 1, wherein said
acyl donor compound is aryl ester.

9. The process for preparing a chiral ester according to claim 7, wherein said
15 aryl ester is selected from the group consisting of *p*-chlorophenyl acetate and
alkenyl acetate.

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